



**SPLIT TYPE
ROOM AIR CONDITIONER**

CEILING type (50Hz)

**SERVICE
MANUAL**



Models

Indoor unit

RY-36FA

RY-36UA

Outdoor unit

RO-36FA

RO-36UA

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SPECIFICATIONS

TYPE		COOLING	COOLING & HEATING
INDOOR UNIT		RY-36FA	RY-36UA
OUTDOOR UNIT		RO-36FA	RO-36UA
COOLING CAPACITY	(kW)	10.5	
HEATING CAPACITY	(kW)	—	11.80

ELECTRICAL DATA

POWER SOURCE		3N ~ 400V	
FREQUENCY		50Hz	
RUNNING CURRENT (A)	COOLING	6.20	5.90
	HEATING	—	6.20
INPUT WATTS (kW)	COOLING	3.74	3.48
	HEATING	—	3.45
E.E.R. (kW/kW)	COOLING	2.81	3.02
	HEATING	—	3.42
MOISTURE REMOVAL	(ℓ/hr)	4.0	
AIR CIRCULATION	(m³/hr)	1,660	

COMPRESSOR

TYPE	Hermetic type, 2 poles, 3 phase, Twin Rotary
DISCRIMINATION	5JD420PAA02

FAN MOTOR

POWER SOURCE (V)		230
INDOOR UNIT	DISCRIMINATION	MFA-45DZM
	HI-SPEED (r.p.m.)	1,000
	MED-SPEED (r.p.m.)	900
	LO-SPEED (r.p.m.)	750
OUTDOOR UNIT	DISCRIMINATION	MFB-30PTT X 2
	HI-SPEED (r.p.m.)	780

DIMENSIONS

INDOOR UNIT	H x W x D (mm)	240 x 1,660 x 700
OUTDOOR UNIT	H x W x D (mm)	1,165 x 900 x 330

WEIGHT

INDOOR UNIT	GROSS / NET (kg)	61 / 48	
OUTDOOR UNIT	GROSS / NET (kg)	87 / 80	101 / 94

ADDITIONAL REFRIGERANT CHARGE (R410A)

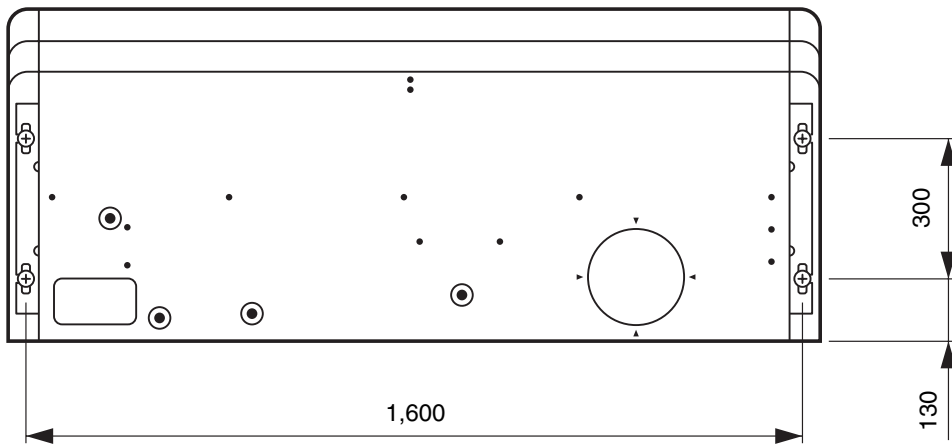
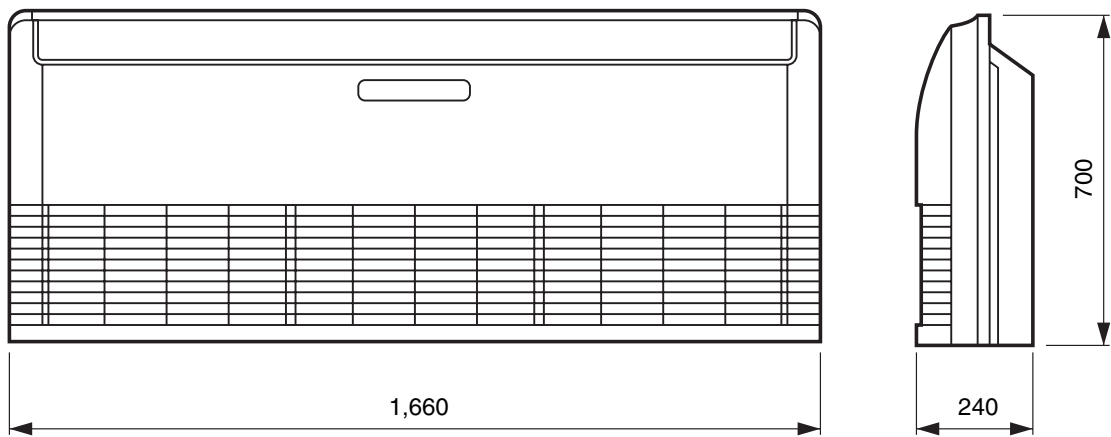
FULL CHARGE AMOUNT	PIPE LENGTH	20 m	2,000 g	3,200 g
		30 m	2,300 g	3,500 g
		40 m	2,600 g	3,800 g
		50 m	2,900 g	4,100 g
MAX PIPE LENGTH (m)		50		
MAX PIPE HEIGHT (m)		30		
ADDITIONAL CHARGE		30 g/m		

DIMENSIONS

(Unit : mm)

INDOOR UNIT

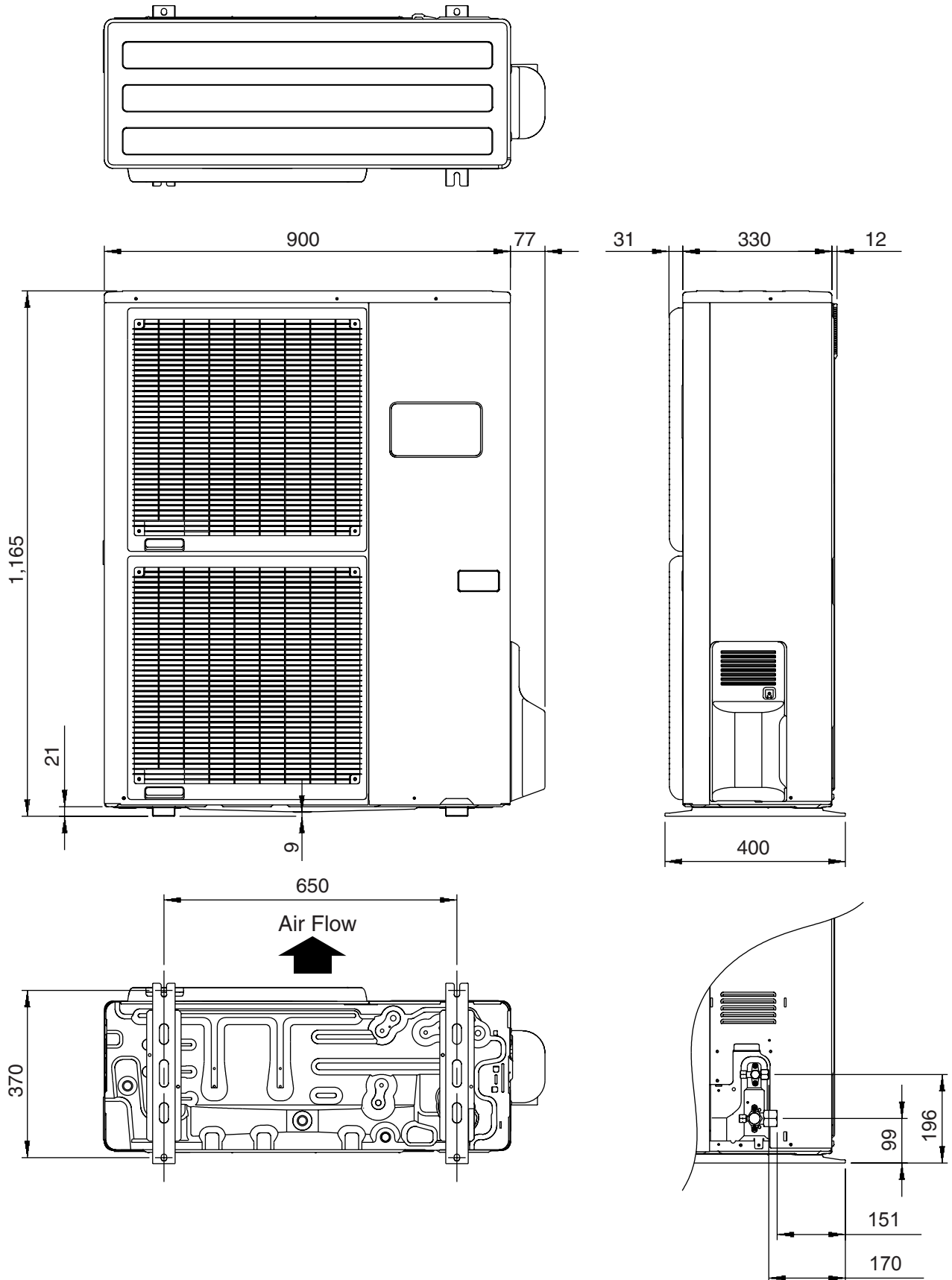
Models : RY-36FA
RY-36UA



OUTDOOR UNIT

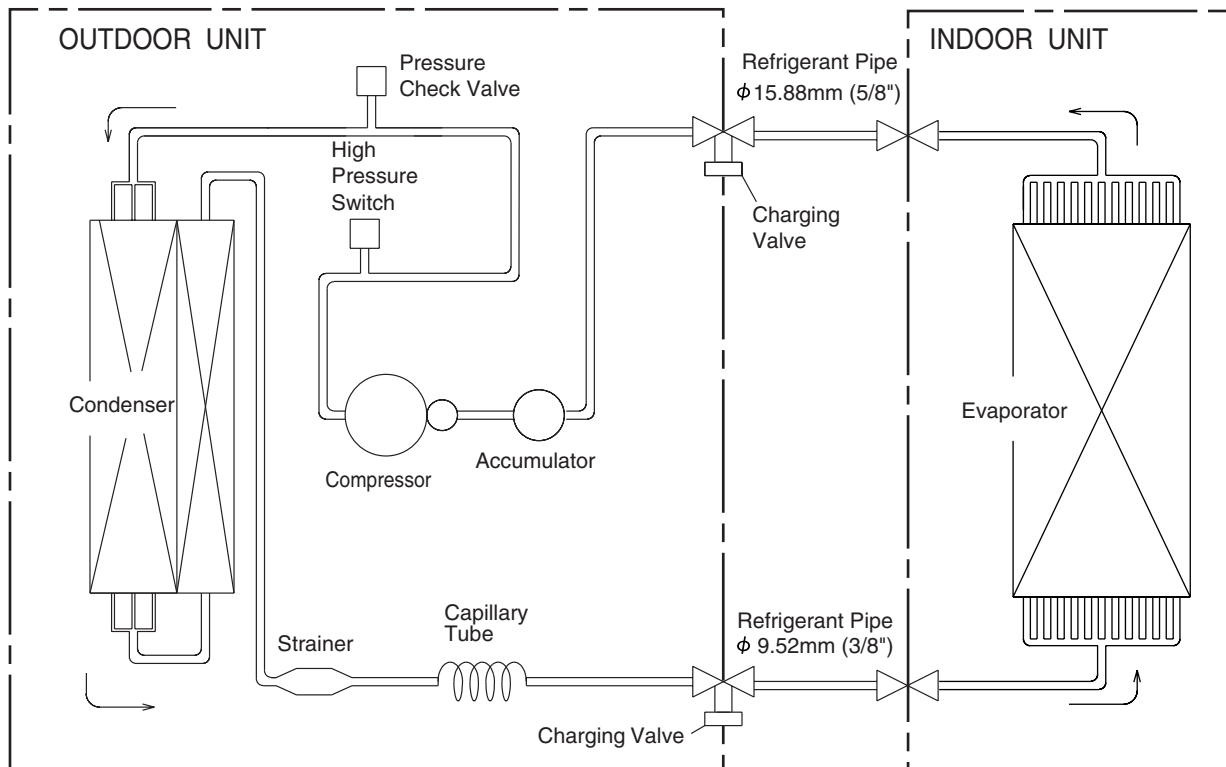
Models : RO-36FA
RO-36UA

(Unit : mm)

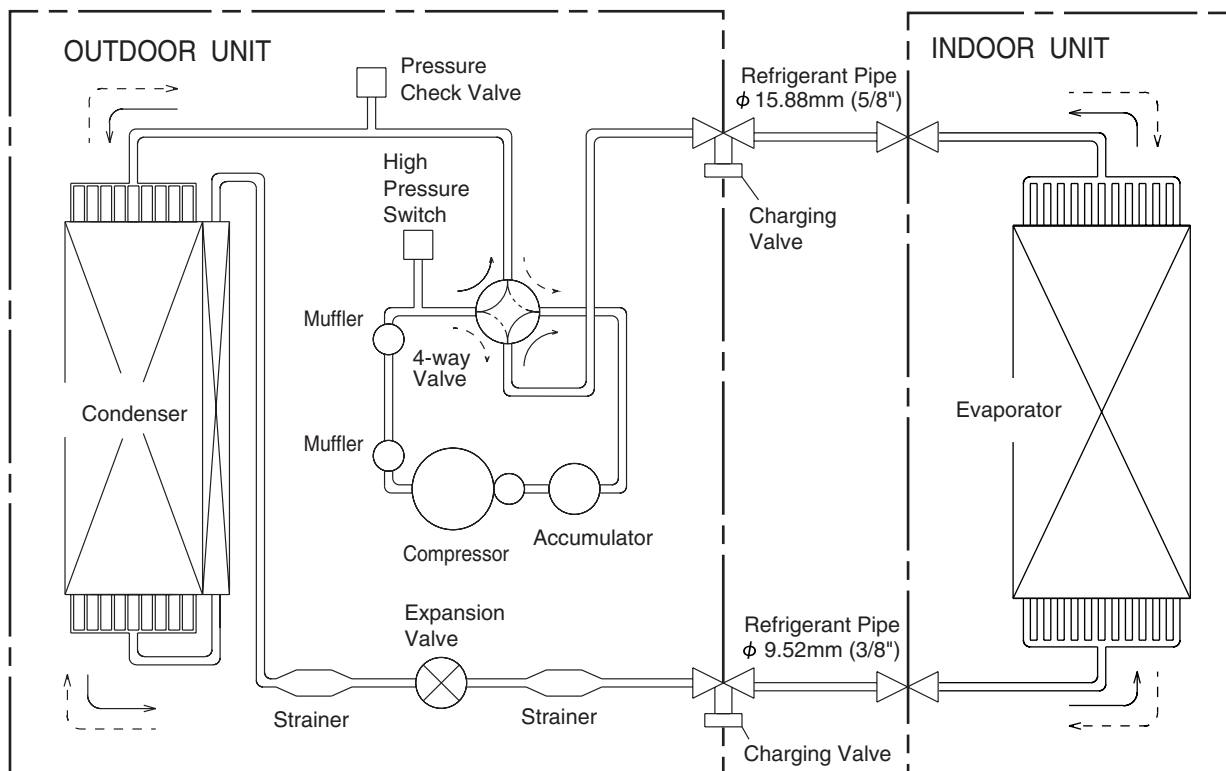


REFRIGERANT SYSTEM DIAGRAM

Models : RY-36FA / RO-36FA



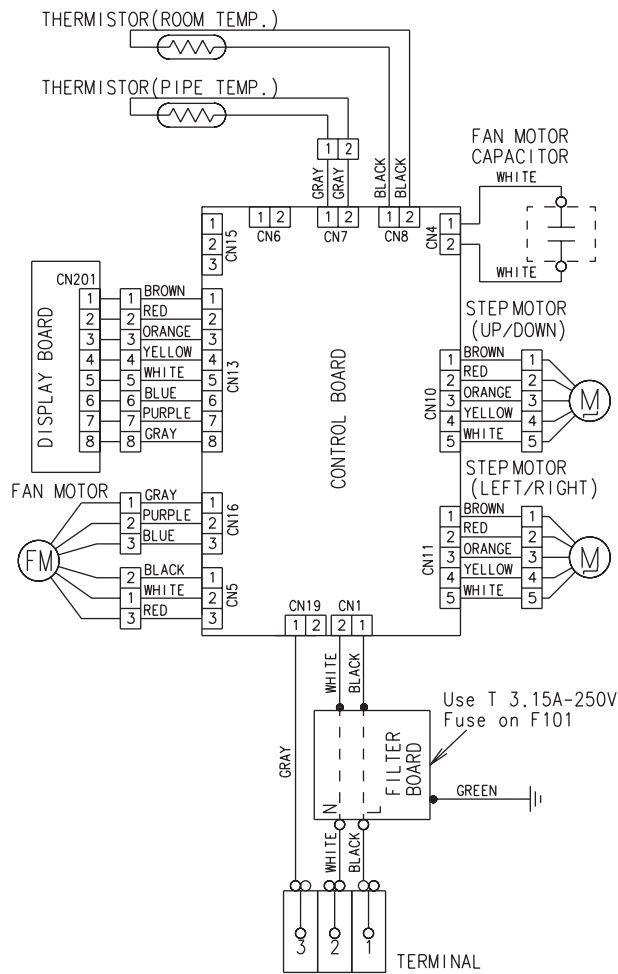
Models : RY-36UA / RO-36UA



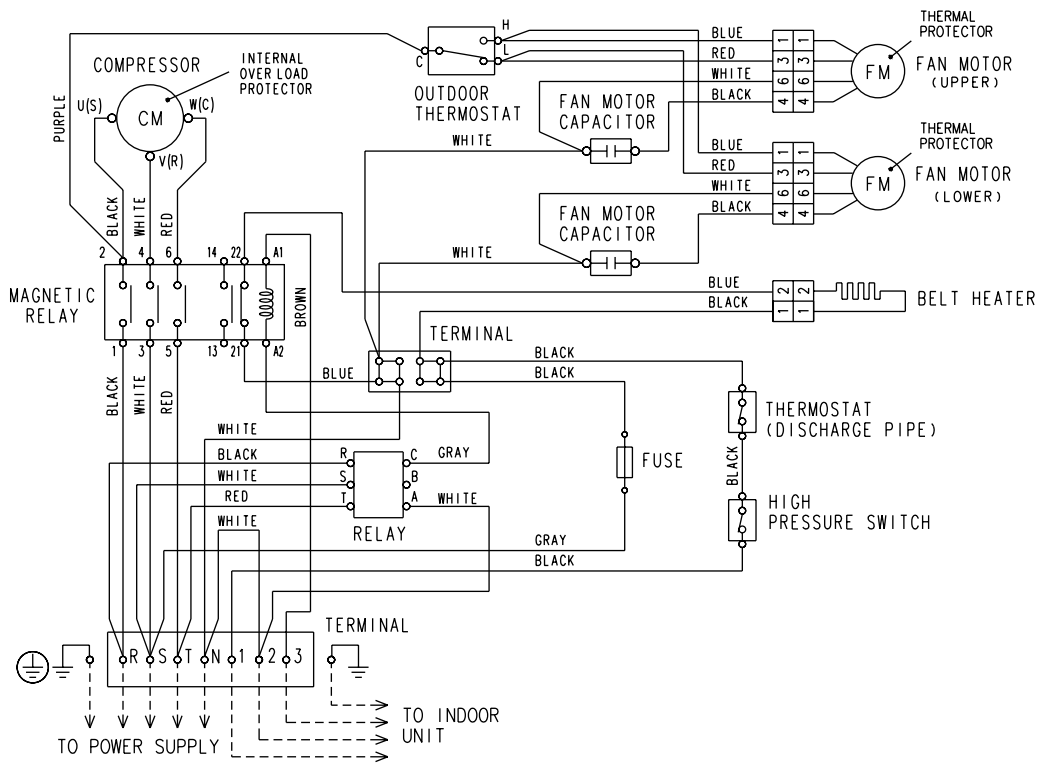
—> : COOL
 - - -> : HEAT

CIRCUIT DIAGRAM

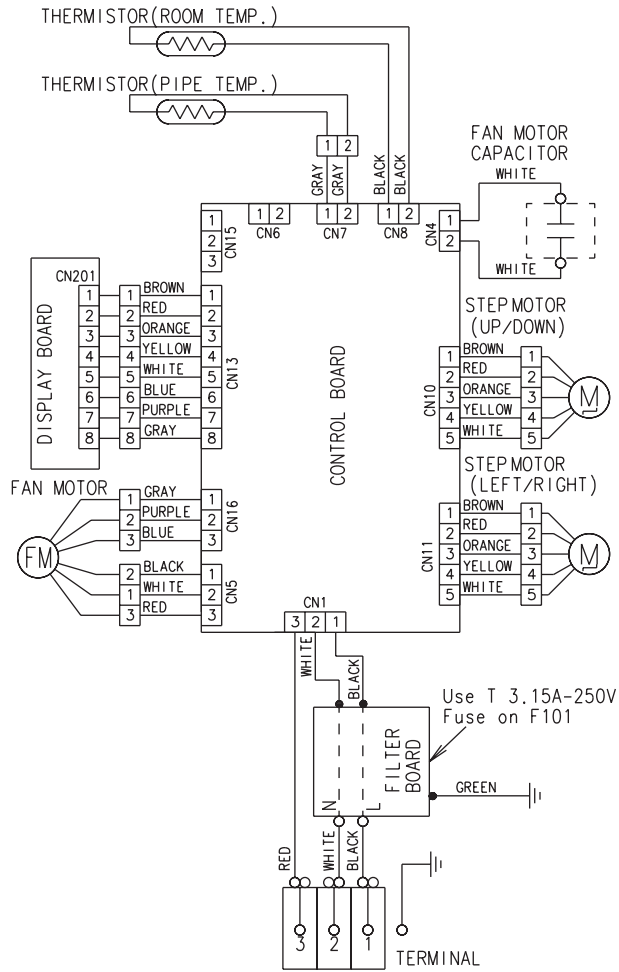
Model : RY-36FA



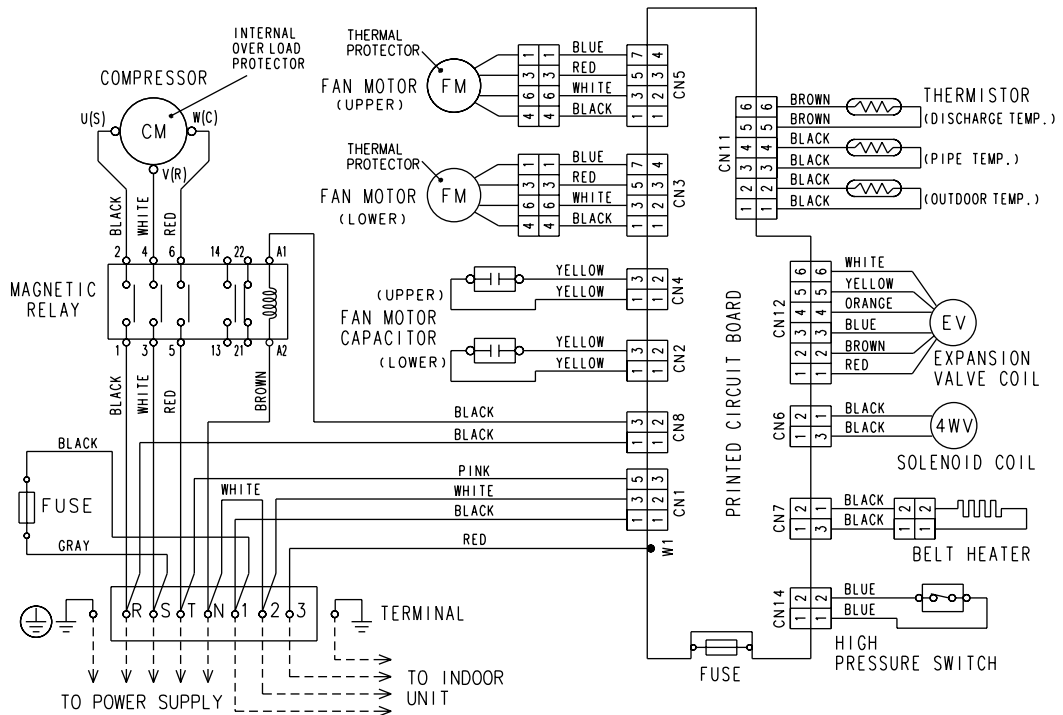
Model : RO-36FA



Model : RY-36UA



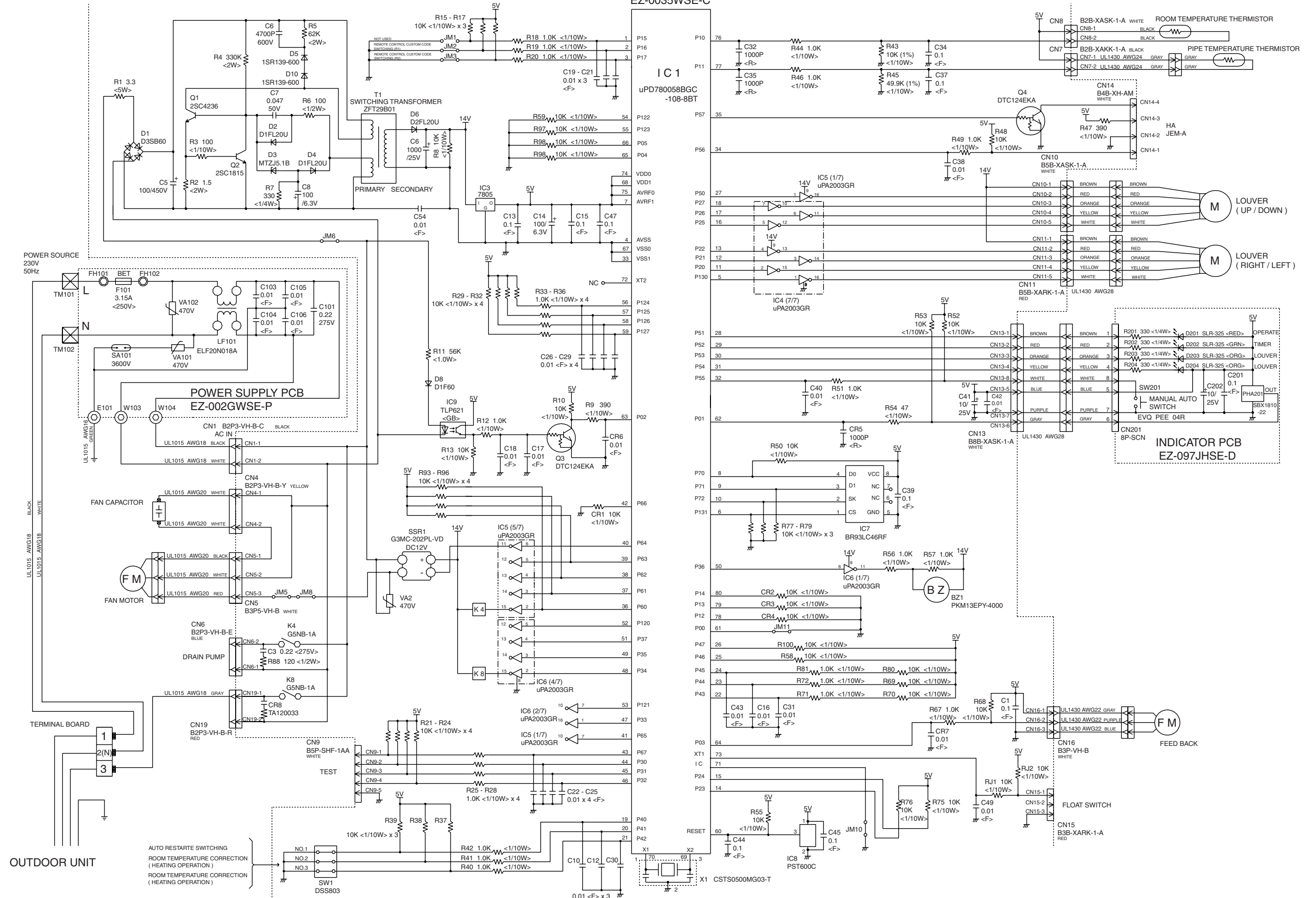
Model : RO-36UA



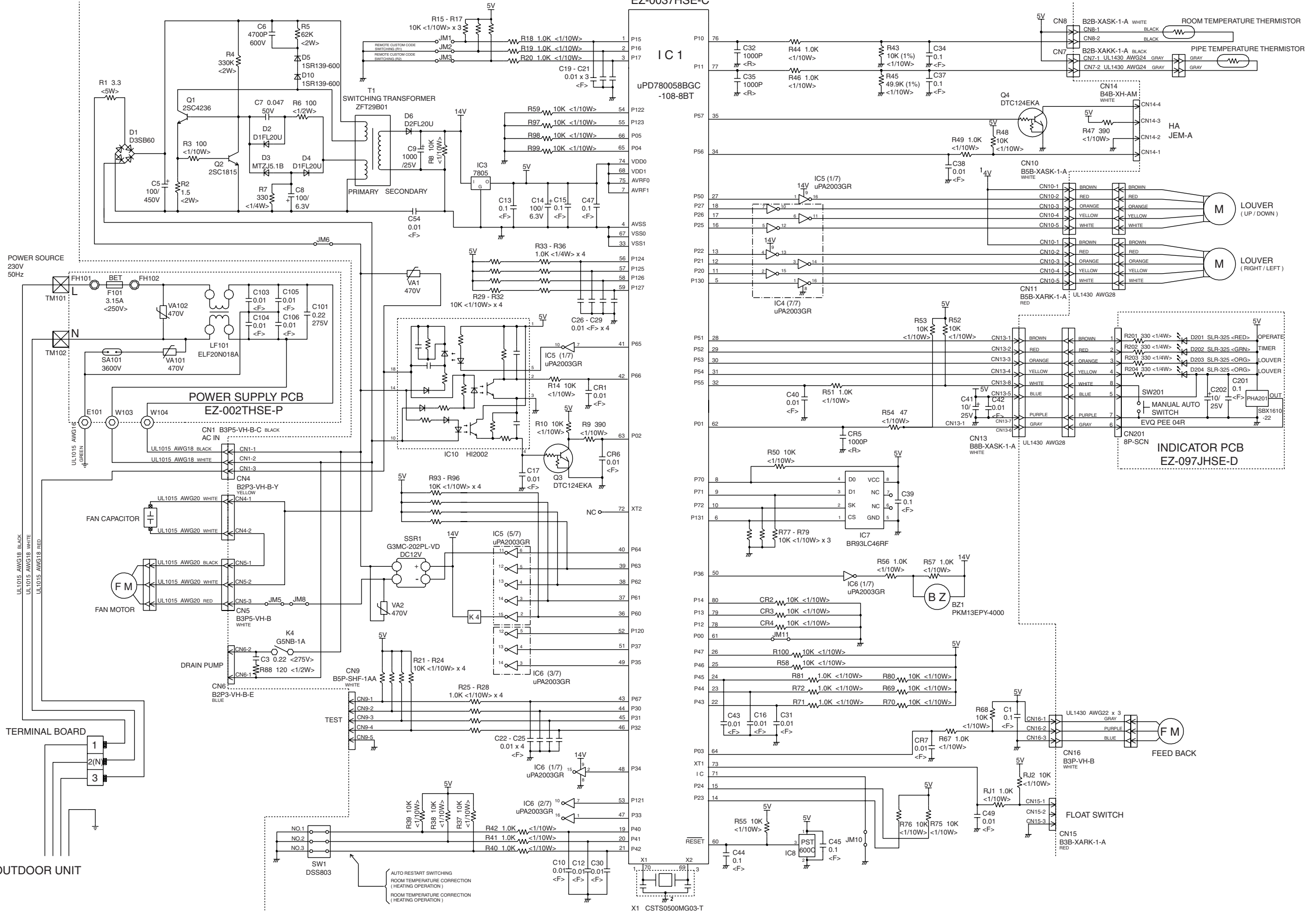
INDOOR PCB CIRCUIT DIAGRAM

Model : RY-36FA

CONTROLLER PCB ASSEMBLY (MAIN PCB) EZ-0035WSE-C



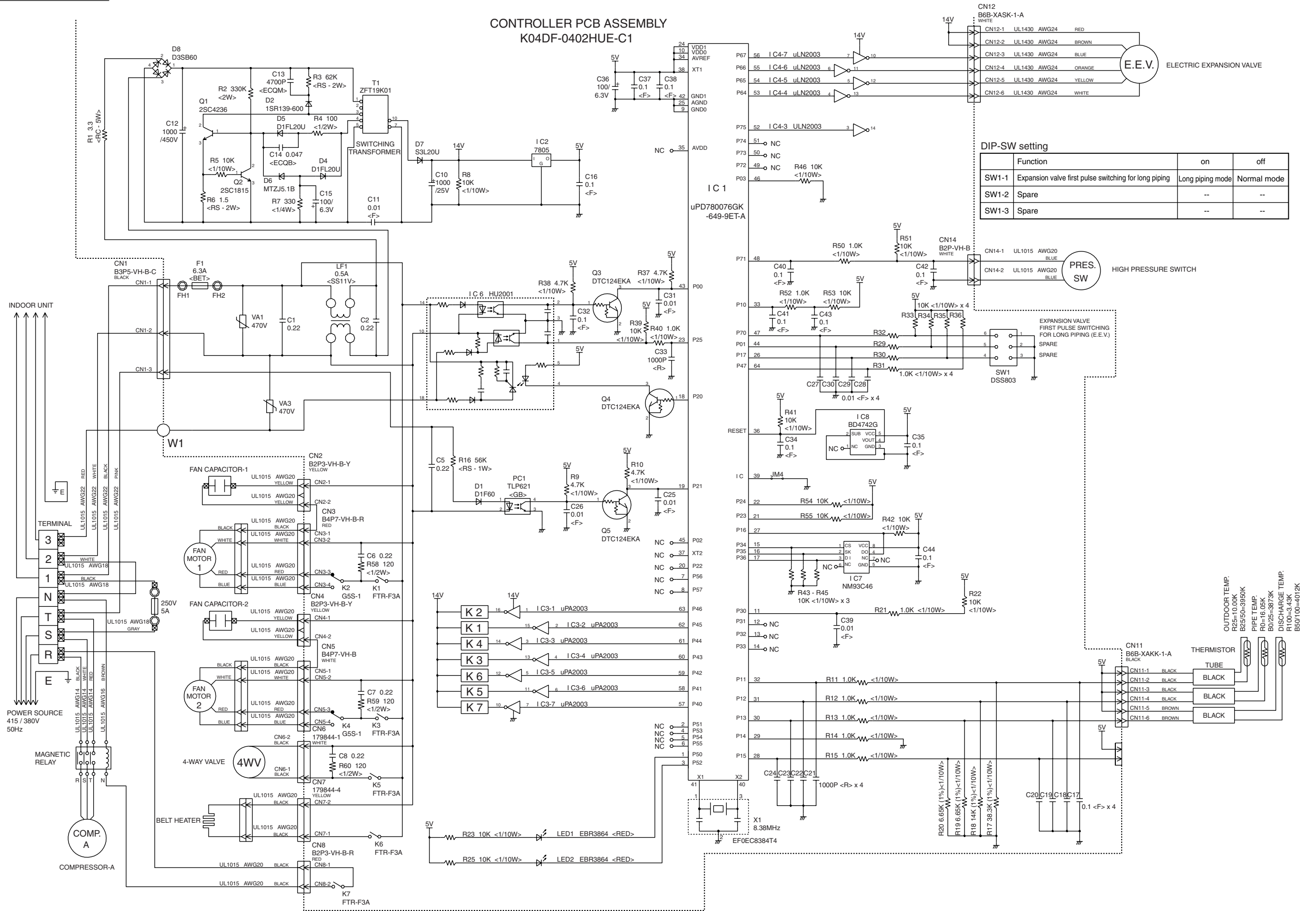
CONTROLLER PCB ASSEMBLY (MAIN PCB)
EZ-0037HSE-C



OUTDOOR PCB CIRCUIT DIAGRAM

Model : RO-36UA

CONTROLLER PCB ASSEMBLY K04DF-0402HUE-C1



DIP-SW setting

	Function	on	off
SW1-1	Expansion valve first pulse switching for long piping	Long piping mode	Normal mode
SW1-2	Spare	--	--
SW1-3	Spare	--	--

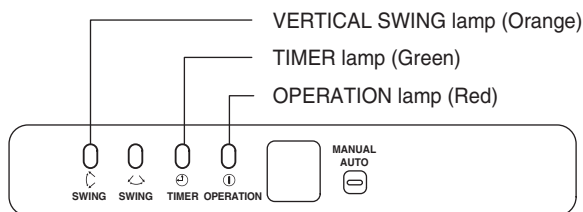
OUTDOOR TEMP.
R25=10.00K
R25/50=3950K
PIPE TEMP.
R0=16.05K
R0/25=3873K
DISCHARGE TEMP.
R100=3.43K
R50/100=4012K

ERROR CONTENTS

1. INDOOR UNIT

Operation can be checked by lighting and flashing of the display section OPERATION, TIMER, and VERTICAL SWING lamps.

Perform judgment in accordance with the following.



TEST RUNNING

When the air conditioner is run by pressing the remote control unit test run button, the OPERATION, TIMER, and VERTICAL SWING lamps flash slowly at the same time.

ERROR

The OPERATION, TIMER, and VERTICAL SWING lamps operate as follows according to the error contents.

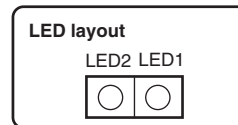
OPERATION lamp (RED)	TIMER lamp (GREEN)	SWING lamp (ORANGE)	Error contents
○	○	×	Indoor EEPROM abnormal
○	○	○	Outdoor EEPROM abnormal
(2 times) ●	○	×	Indoor room temperature sensor open
(2 times) ●	○	○	Indoor room temperature sensor short-circuited
(3 times) ●	○	×	Indoor heat exchanger temperature sensor open
(3 times) ●	○	○	Indoor heat exchanger temperature sensor short-circuited
(4 times) ●	○	×	Float switch operated
(5 times) ●	○	×	Indoor signal abnormal
(5 times) ●	○	○	Outdoor signal abnormal
(6 times) ●	○	×	Indoor fan abnormal
○	(2 times) ●	×	Outdoor power source connection abnormal
○	(3 times) ●	×	Outdoor heat exchanger temperature sensor open
○	(3 times) ●	○	Outdoor heat exchanger temperature sensor short-circuited
○	(4 times) ●	×	Outdoor temperature sensor open
○	(4 times) ●	○	Outdoor temperature sensor short-circuited
○	(5 times) ●	×	Outdoor discharge pipe temperature sensor or compressor temperature sensor open
○	(5 times) ●	○	Outdoor discharge pipe temperature sensor or compressor temperature sensor short-circuited
○	(6 times) ●	×	Outdoor high pressure abnormal
○	(7 times) ●	×	Outdoor discharge pipe temperature or compressor temperature sensor abnormal

○ : 0.1s ON/0.1s OFF (flash) × : OFF
 ● : 0.5s ON/0.5s OFF (flash)

2. OUTDOOR UNIT LEDS

Heat & Cool model (reverse cycle) only

When a malfunction occurs in the outdoor unit, the LEDs on the circuit board light to indicate the error. Refer to the following table for the description of each error according to the LEDs.



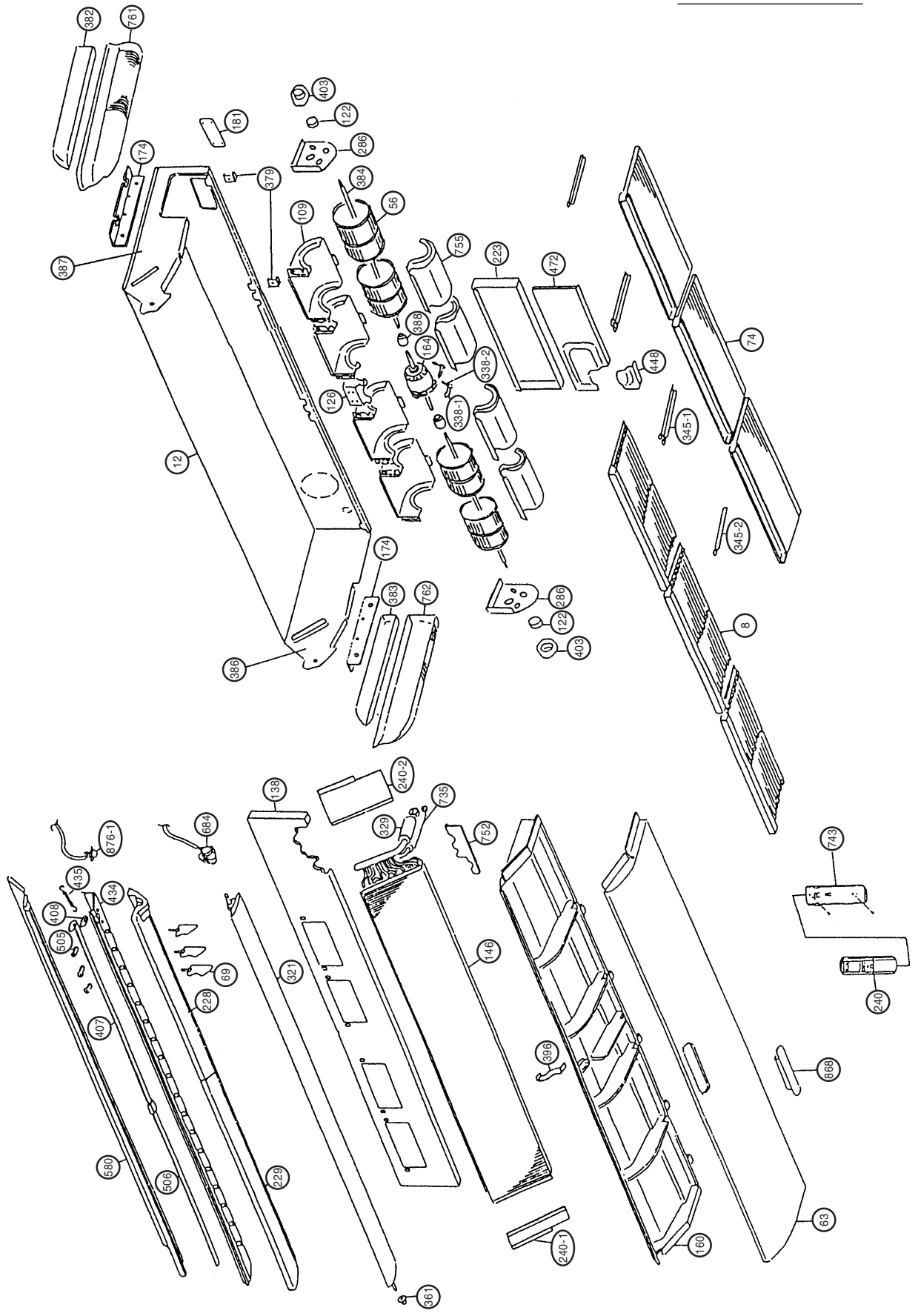
LED1	LED2	Error contents
flash	flash	Model abnormal or EEPROM abnormal
1 flash	Lighting	Power source connection error
2 flash	Lighting	Discharge temp. sensor error
3 flash	Lighting	Heat exchanger temp. sensor error
4 flash	Lighting	Outdoor temp. sensor error
5 flash	Lighting	Communication signal error
6 flash	Lighting	Indoor unit error
7 flash	Lighting	Discharge temp. abnormal
8 flash	Lighting	High pressure abnormal
9 flash	Lighting	Compressor temp. abnormal
10 flash	Lighting	Compressor temp. sensor error
Dislighting		No error. Protect operation

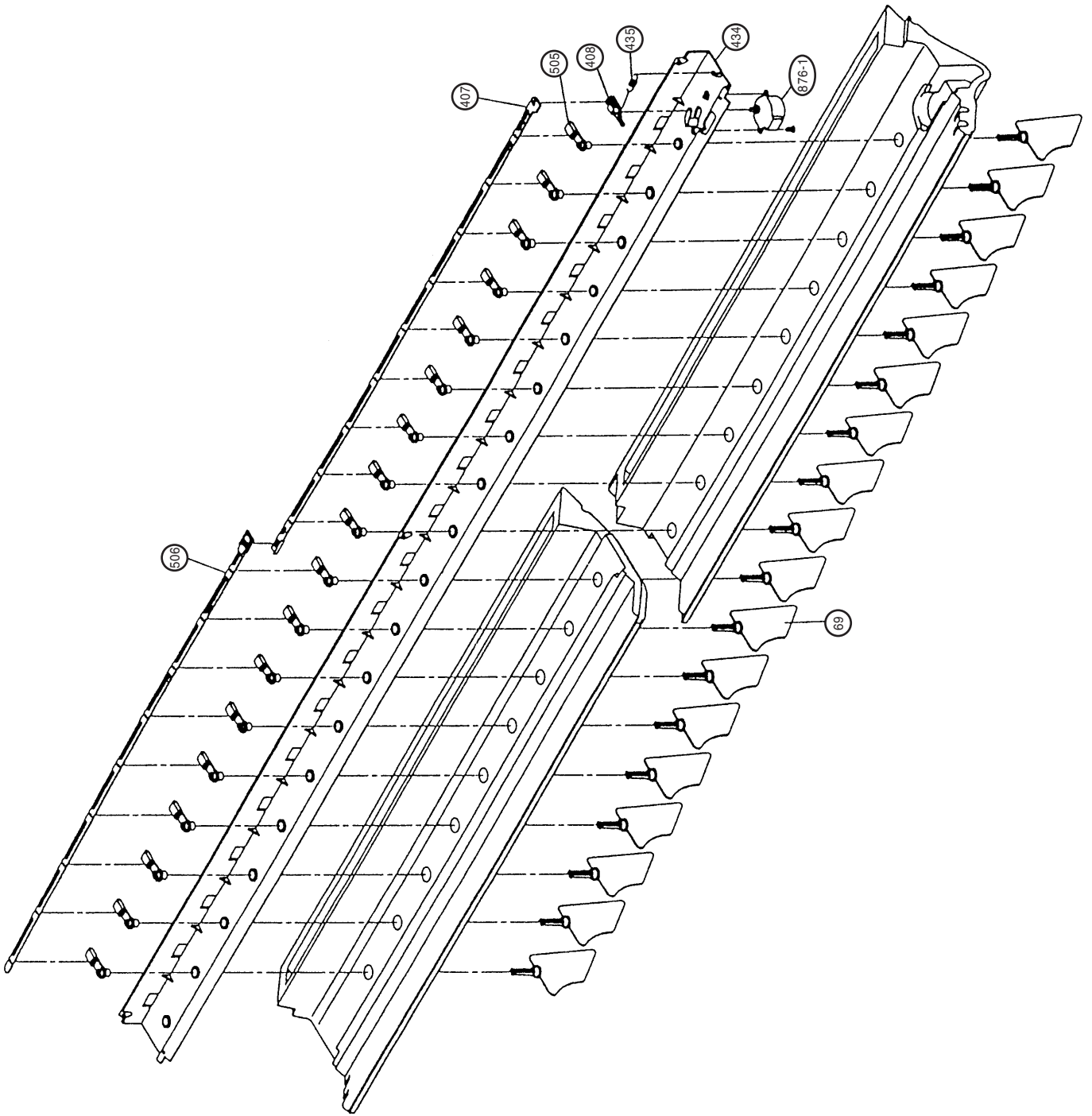
When the fault is cleared, the LED lamp goes off.

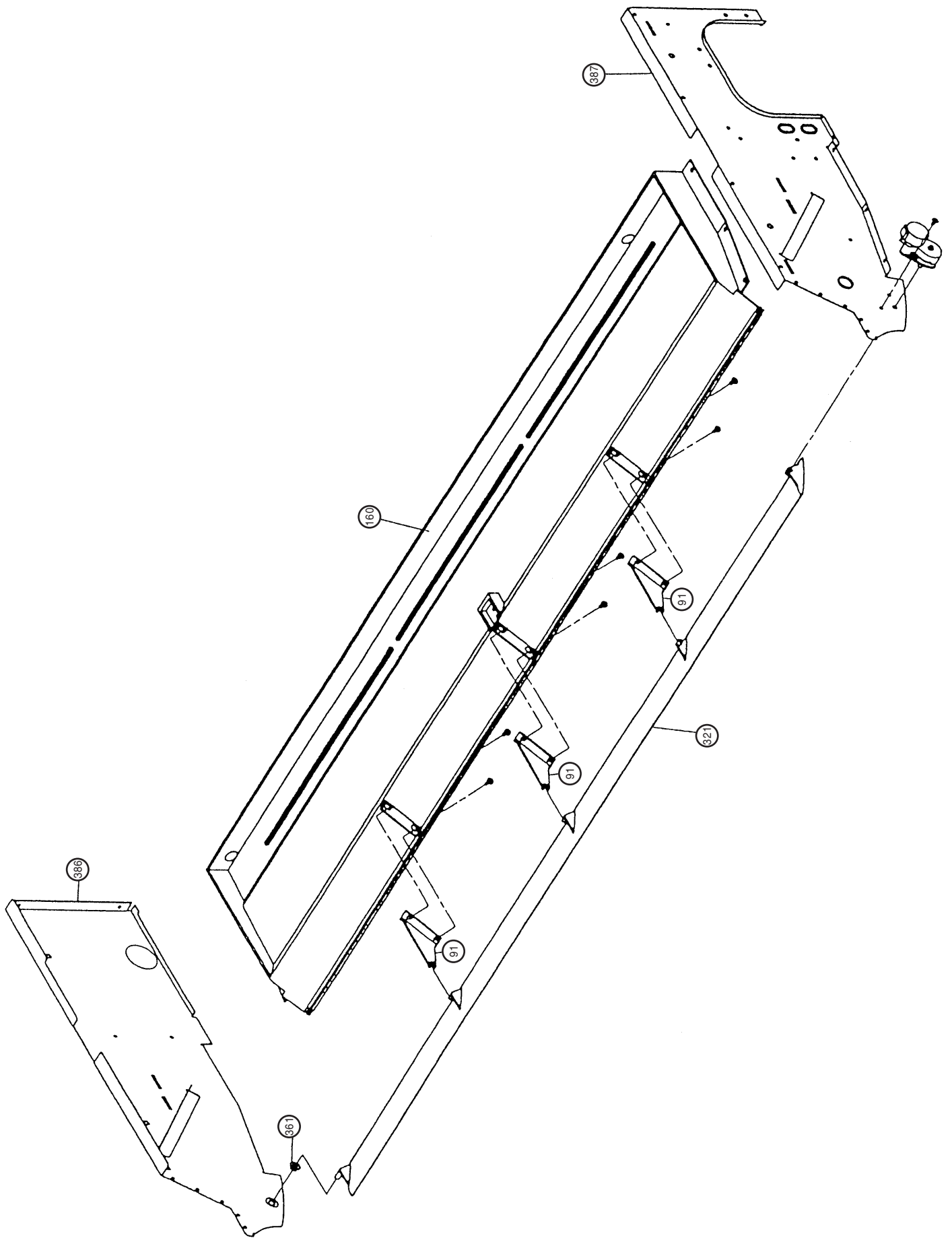
However, for discharge pipe temperature abnormal and high pressure abnormal, the LED lamp lights continuously for 24 hours, as long as the power is not turned off.

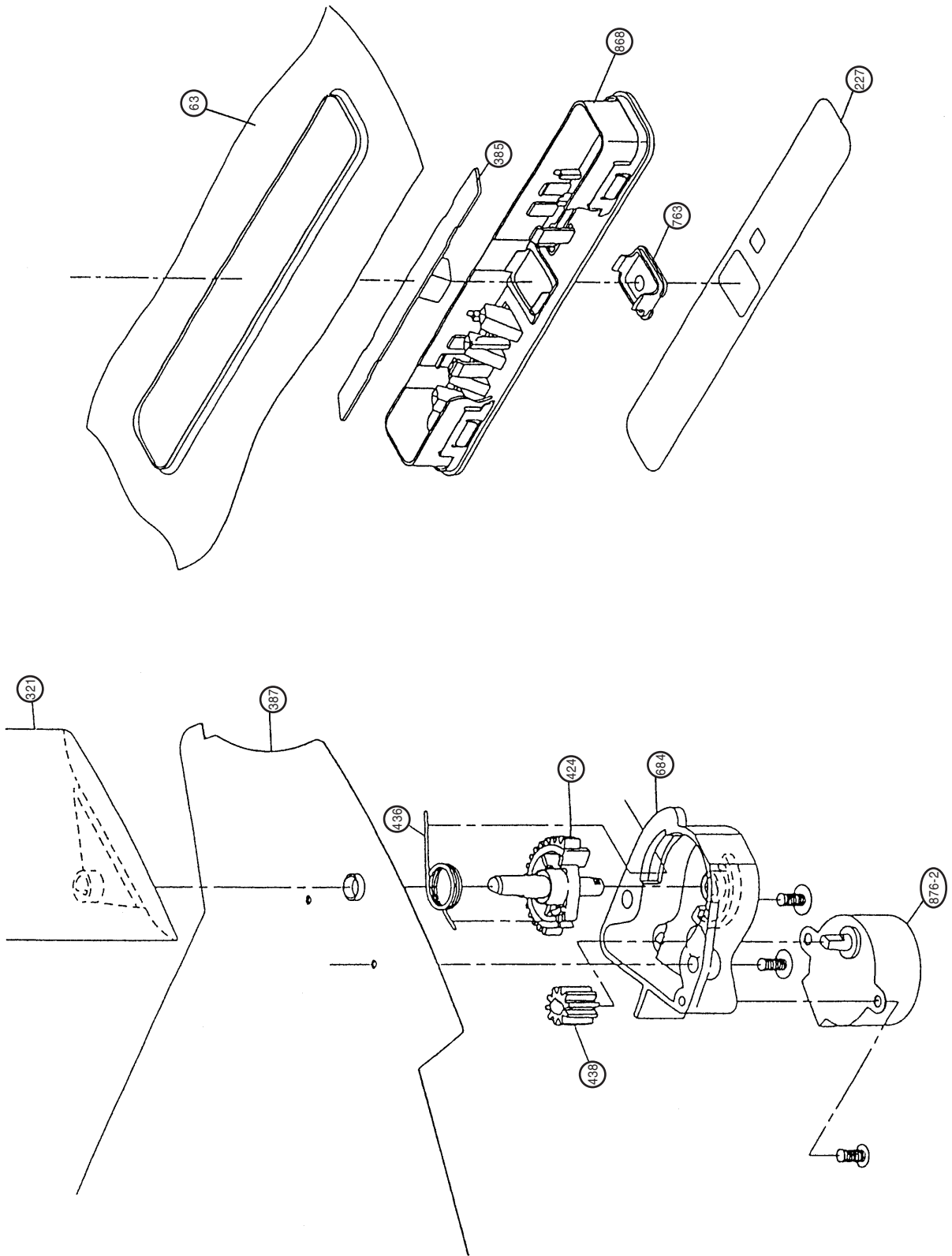
DISASSEMBLY ILLUSTRATION

Models : RY-36FA
RY-36UA

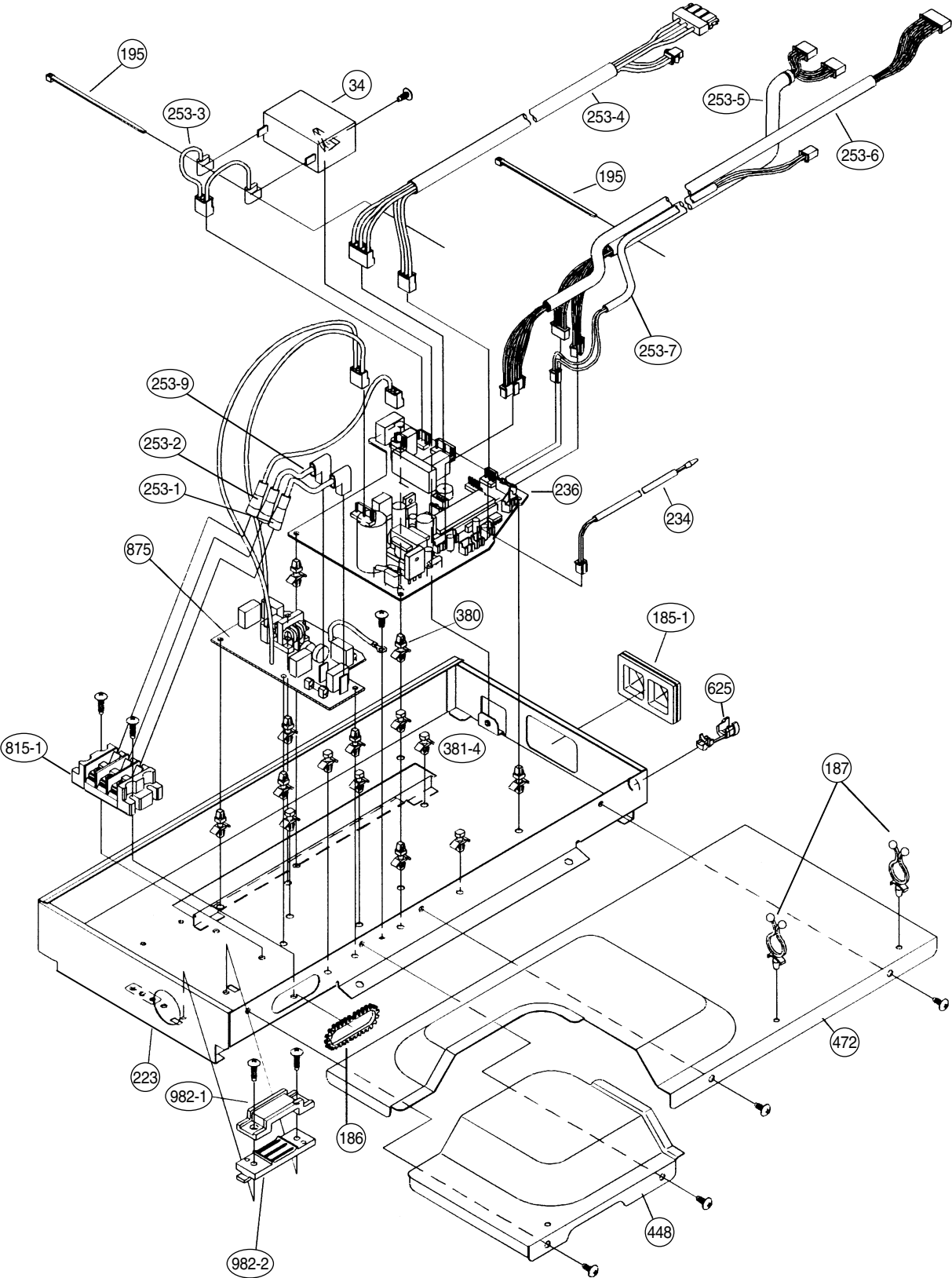




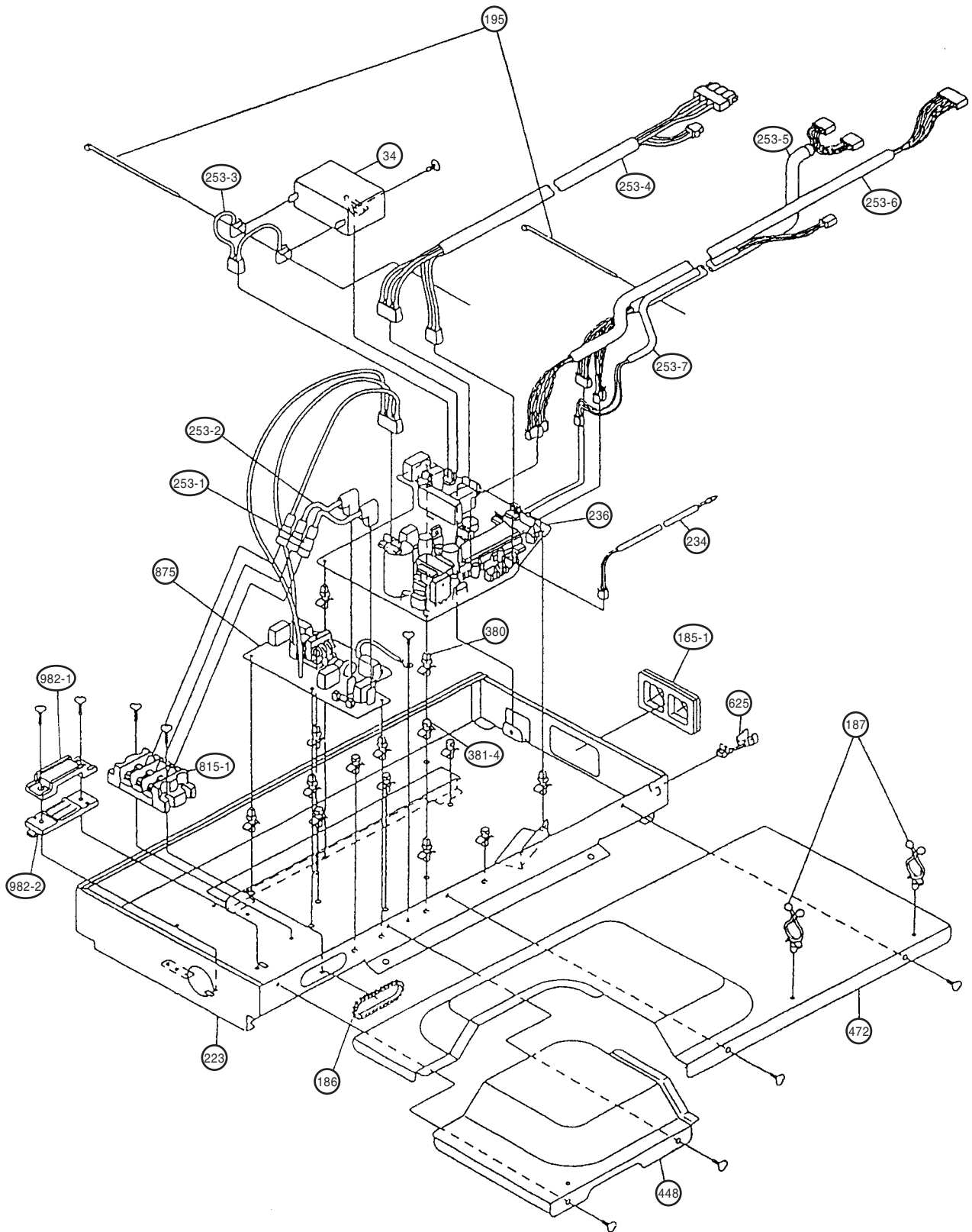




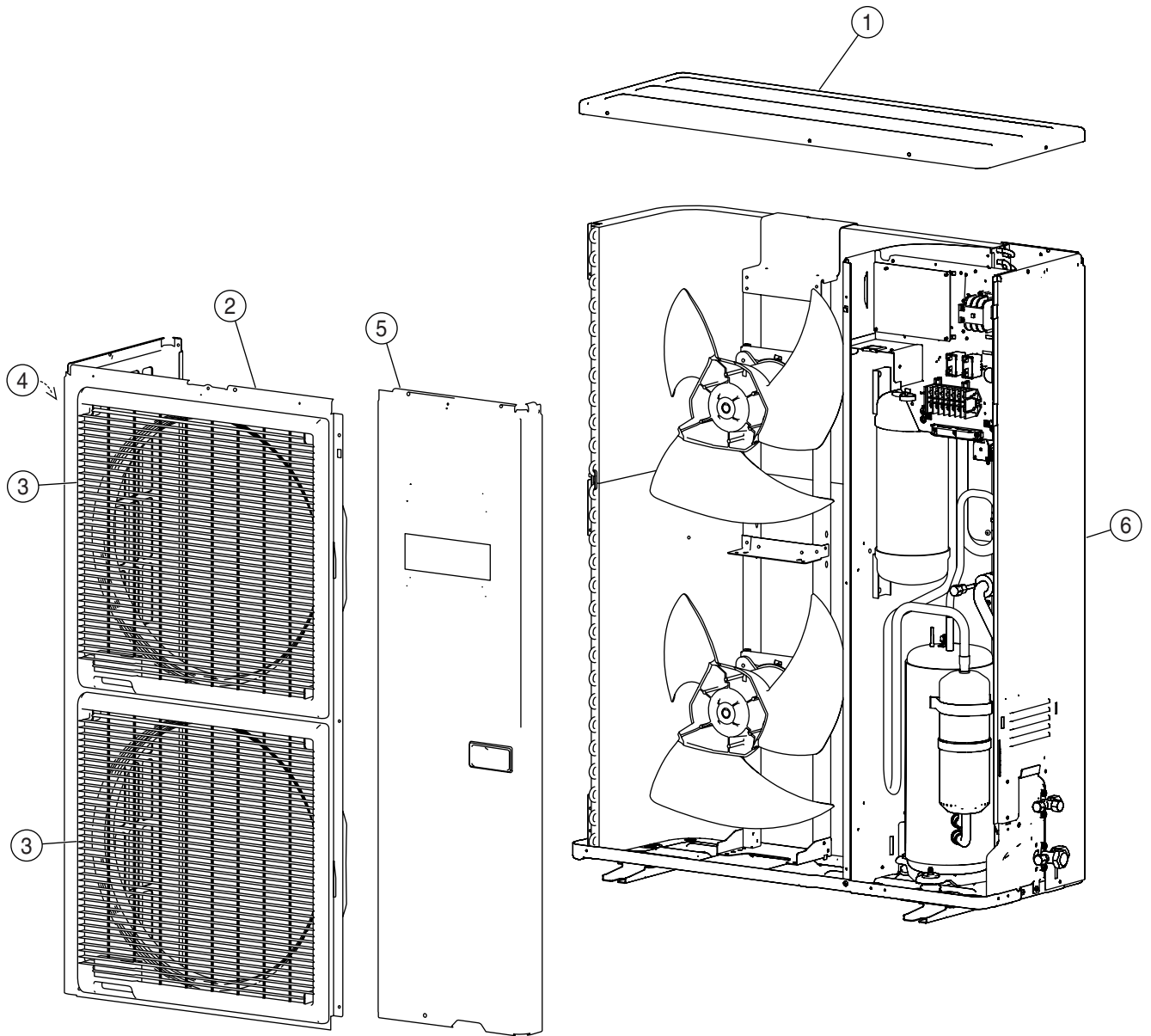
Model : RY-36FA

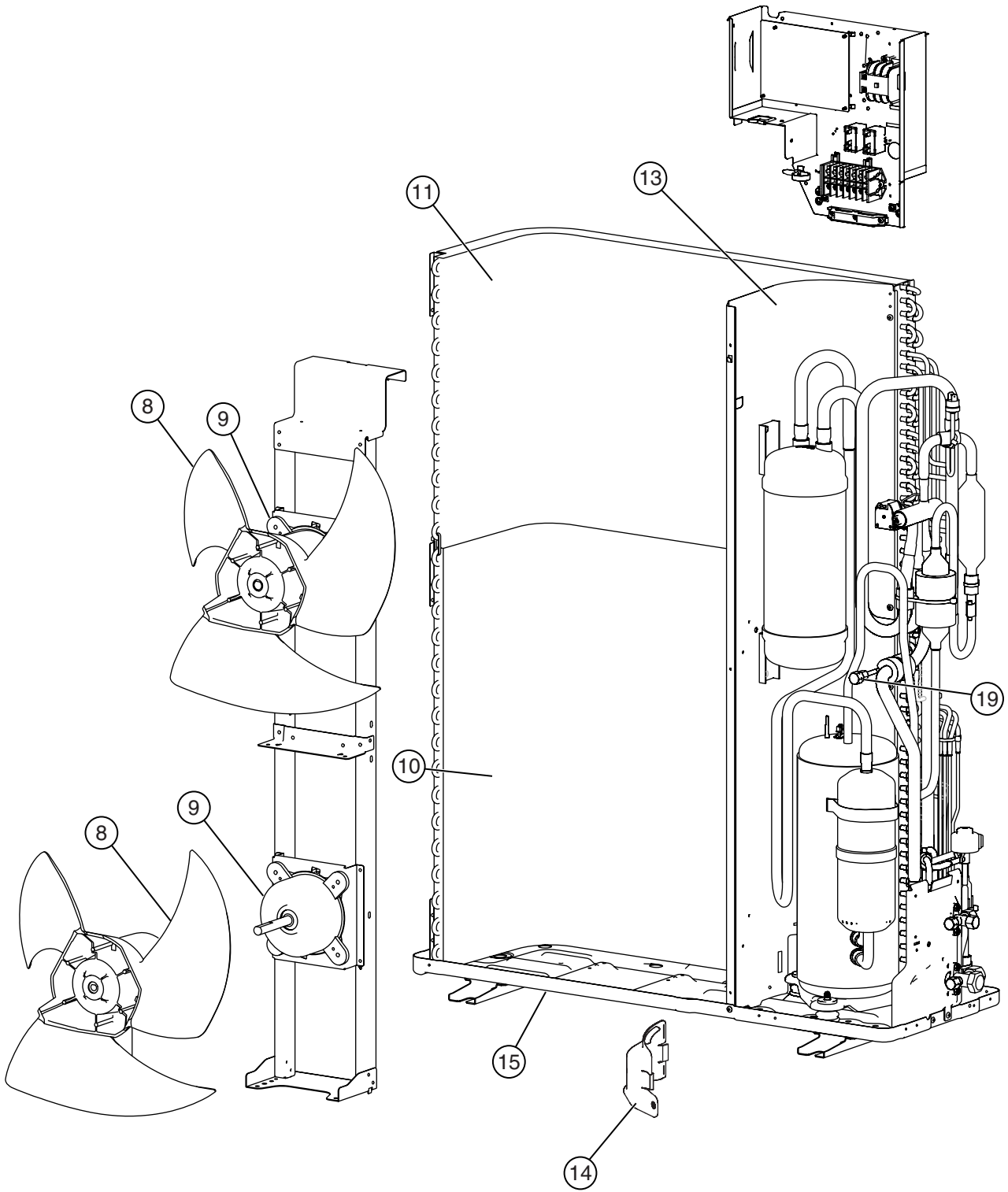


Model : RY-36UA

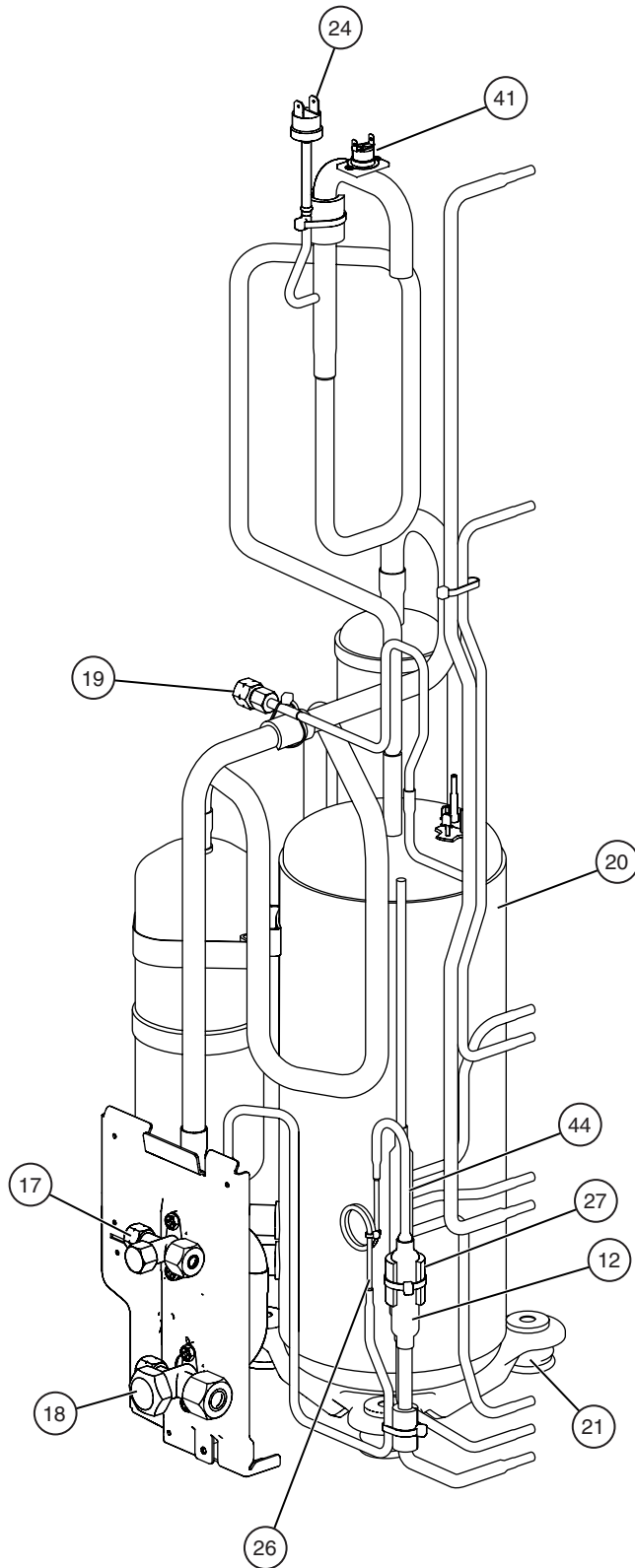


Models : RO-36FA
RO-36UA

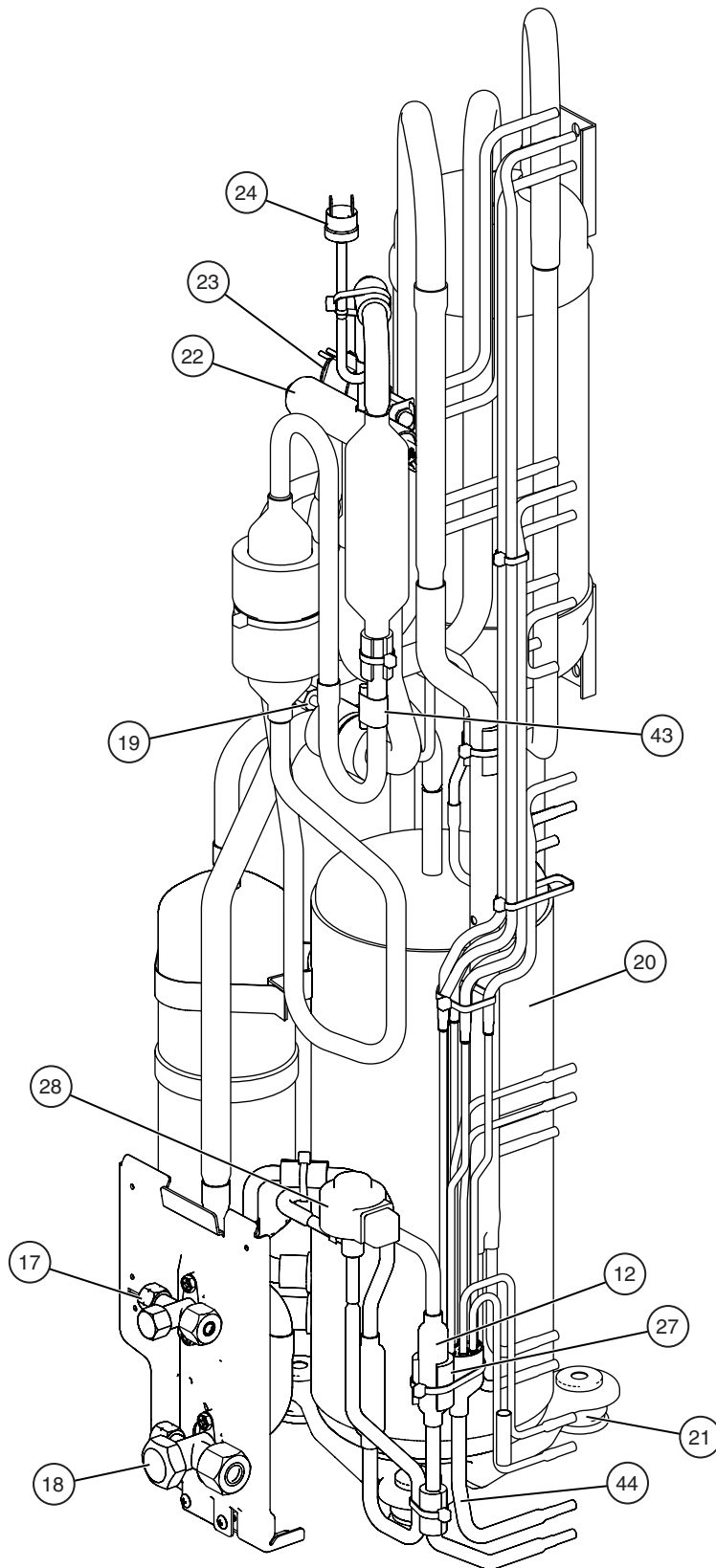




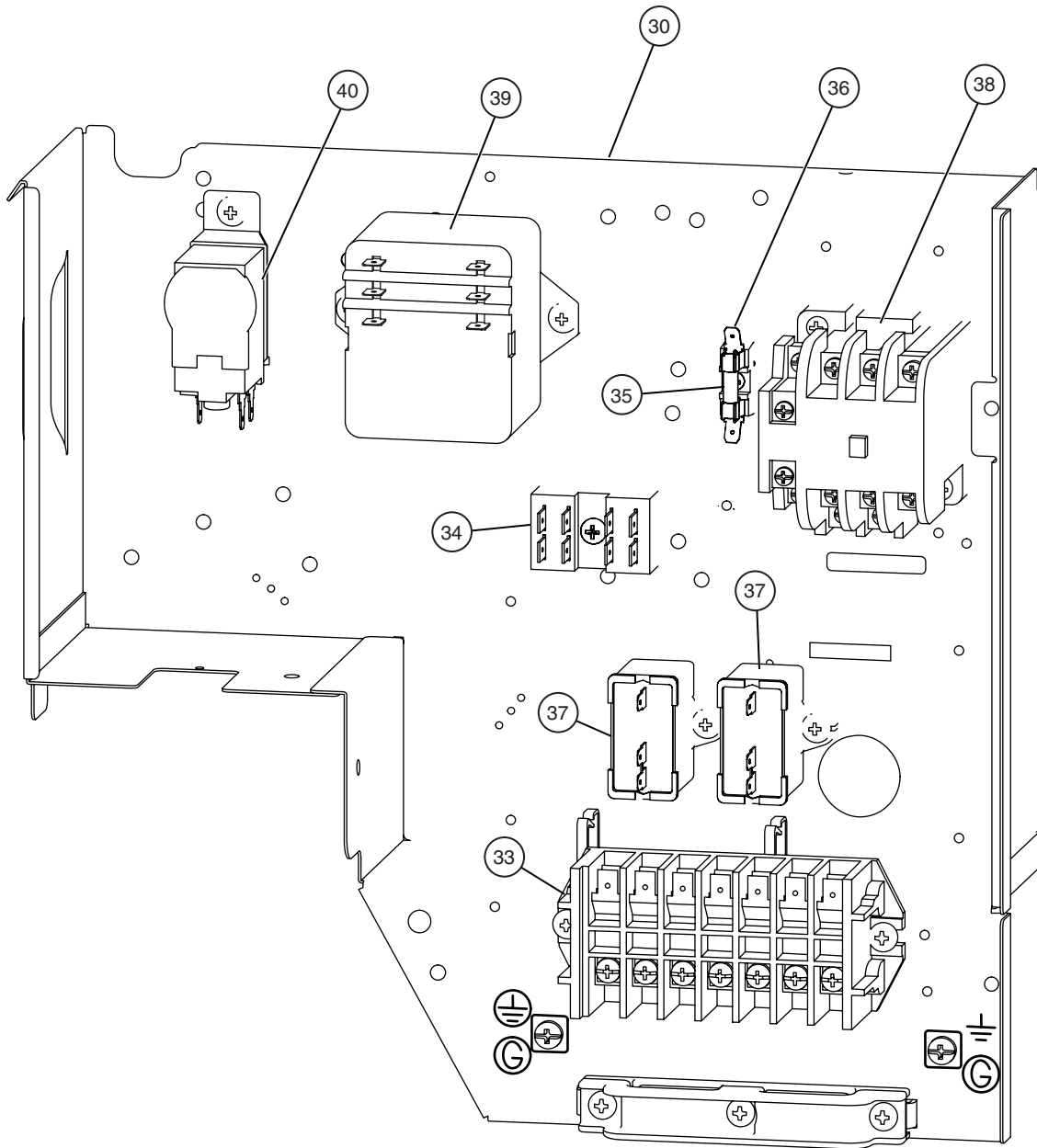
Model : RO-36FA



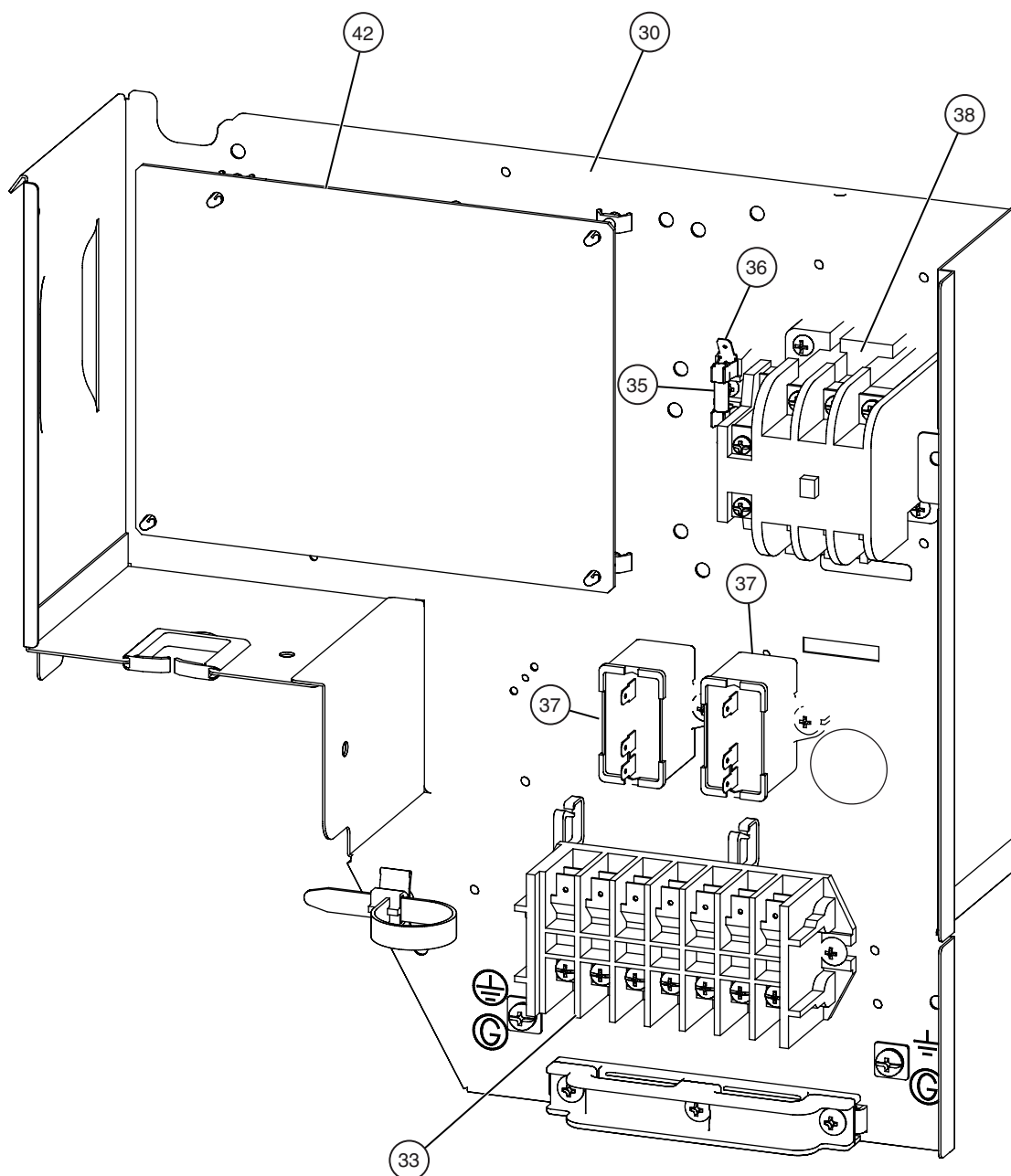
Model : RO-36UA



Model : RO-36FA



Model : RO-36UA



PARTS LIST

INDOOR UNIT

When you order parts, please make a photocopy of this page and fill the number of the parts in the "Order" column.


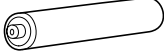


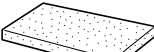






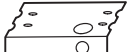
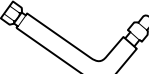
Ref. No.	Description	Part No.		Ord. Q'ty	Ref. No.	Description	Part No.		Ord. Q'ty
		RY-36FA	RY-36UA				RY-36FA	RY-36UA	
8	Air Filter	9359739005	9359739005		338-2	Motor Fixture-B	9359703006	9359703006	
12	Base Assy	9359680000	9359680000		345-1	Filter Guide-R	9359692003	9359692003	
34	Capacitor (Fan Motor)	9900270216	9900270216		345-2	Filter Guide-L	9359693000	9359693000	
56	Sirocco Fan Assy	9359701002	9359701002		361	Bushing	9359733003	9359733003	
63	Panel (Front)	9359734000	9359734000		379	Hinge Plate (Grille)	9359694007	9359694007	
69	Louver	9359719007	9359719007		380	Locking Spacer KGLS-6S	313209391403	313209391403	
74	Intake Grille	9359738008	9359738008		381-4	Locking Spacer KGPS-6S	0600118075	0600118075	
91	Hinge	9359699002	9359699002		382	Cover (Decoration)-R	9359744009	9359744009	
109	Casing	9359704003	9359704003		383	Cover (Decoration)-L	9359745006	9359745006	
122	Shaft Holder-B	9357921006	9357921006		384	Shaft	9359707004	9359707004	
126	Motor Fixing Table	9359681007	9359681007		385	Indicator PCB Assy	9702260019	9702260019	
138	Kit (Separate Wall Sub Assy)	9371366012	9371366012		386	Panel-Left Assy	9359685005	9359685005	
----	Evaporator Sub Assy	9360428219	9360428219		387	Panel-Right Assy	9359683001	9359683001	
146	Evaporator Assy	9371073040	9371073040		388	Joint Assy	9359706007	9359706007	
160	Drain Pan	9359698005	9359698005		396	Rfm, Bracket Metal	9359677008	9359677008	
164	Fan Motor Assy-IN	9360457004	9360457004		403	Shaft Holder Fixture	9359687009	9359687009	
174	Hanger Bracket	9359742005	9359742005		407	Rod (Motor)	9359723004	9359723004	
181	Hole Cover	9359691006	9359691006		408	Louver Link	9359726005	9359726005	
185-1	Louver Bushing	9357376004	9357376004		424	Sector Gear	9359729006	9359729006	
186	Edge Cover	9361049017	9361049017		434	Louver Base	9359718000	9359718000	
187	Clamp No. 1219	313361271706	313361271706		435	Louver Spring	9359720003	9359720003	
195	Clamp SKB-100	313361275805	313361275805		436	Flap Spring	9359730002	9359730002	
223	Control Box Assy	9359708001	9359708001		438	Pinion Gear	9359728009	9359728009	
227	Badge	9359735045	9359735045		448	Control Box-B	9359713005	9359713005	
228	Insulation (Louver)-R	9359721000	9359721000		472	Control Box-A	9359712008	9359712008	
229	Insulation (Louver)-L	9359722007	9359722007		505	Louver Stopper	9359724001	9359724001	
234	Room Temperature Thermistor	9703299025	9703299025		506	Louver Rod	9359725008	9359725008	
----	Pipe Temperature Thermistor	9900022020	9900022020		580	Top Cover	9359737001	9359737001	
----	Thermistor Spring-A	313728262708	313728262708		625	Cord Bushing	9359240006	9359240006	
236	Controller PCB Assy	9704557353	9704557391		684	Motor Base	9359727002	9359727002	
240	Remote Control Unit	9371190020	9371190013		735	Distributor Assy	9360455000	9360455000	
240-1	Kit (Panel Pipe-L) Sub Assy	9371362014	9371362014		743	Remote Control Unit Holder	9305642014	9305642014	
240-2	Kit (Panel Pipe-R) Sub Assy	9371363011	9371363011		752	Pipe Fixture Metal	9359688006	9359688006	
253-1	Wire Assy (Connector)	9702321017	9702321017		755	Casing Cover	9359705000	9359705000	
253-2	Wire Assy (Connector)	9702322014	9702322014		761	Side Cover-R	9359740001	9359740001	
253-3	Wire Assembly	9702311018	9702311018		762	Side Cover-L	9359741008	9359741008	
253-4	Wire Assy (Connector)	9702323011	9702323011		763	Receiver Cover	9359714002	9359714002	
253-5	Wire Assy (Connector)	9702319014	9702319014		815-1	Terminal-3P	9900203016	9900203016	
253-6	Wire Assy (Connector)	9702317010	9702317010		868	PCB Holder	9359736004	9359736004	
253-7	Wire Assy (Connector)	9702318017	9702318017		875	Power Supply PCB Assy	9704561138	9704561060	
253-9	Wire Assembly	9704847010	----		876-1	Motor, Step-H	9360479013	9360479013	
286	Shaft Holder Bracket	9359686002	9359686002		876-2	Motor, Step-V	9360307026	9360307026	
321	Flap Assy	9359731009	9359731009		982-1	Cord Clamp-A	9359820017	9359820017	
329	Coupling Pipe Assy	9373038214	9373038214		982-2	Cord Clamp-B	9359821014	9359821014	
338-1	Motor Fixture	9359702009	9359702009						

OUTDOOR UNIT

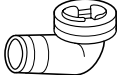

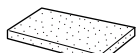
Ref. No.	Description	Part No.		Ord. Q'ty
		RO-36FA	RO-36UA	
1	Top Panel Sub Assy	9374417018	9374417018	
2	Front Panel-L, Painted	9374094042	9374094042	
3	Fan Guard	9374330010	9374330010	
4	Side Grip	9374173013	9374173013	
5	Service Panel Assy	9374093045	9374093045	
6	Right Panel Assy	9374095049	9374095049	
8	Propeller Fan Assy	9366378013	9366378013	
9	Motor, Induction	9601671060	9601671060	
10	Condenser-A Assy	9374433049	9374433032	
11	Condenser-B Assy	9374434046	9374434039	
12	Strainer Assy	9372524015	9372524015	
13	Separate Wall Sub Assy	9374413058	9374413058	
14	Cap Foot	9374345014	9374345014	
15	Base Assy	9374166046	9374166046	
17	3-Way Valve Assy (3/8)	9372205044	9372205044	
18	3-Way Valve Assy (5/8)	9372205075	9372205075	
19	Check Joint Assy	9372802038	9372802038	
20	Compressor Assy	9372558096	9372558096	
21	Rubber Seat (For Comp.)-A	9351049010	9351049010	
22	4-Way Valve	-----	9900164010	
23	Solenoid	-----	9900165055	
24	Pressure Switch	9900276010	9900186012	
26	Capillary Assy	9372197318	-----	
27	Capillary Holder Rubber	313394274808	313394274808	
28	Expansion Valve Assy	-----	9370947090	
30	Control Box	9374164011	9374164011	
33	Terminal HP-T3041-B7-L0	9363276039	9363276039	
34	Terminal HP-T4005-21	9701971015	-----	
35	Fuse	0600376086	0600376086	
36	Fuse Holder	0501456016	0501456016	
37	Capacitor, Plastic (For Fan Motor)	9900270049	9900270049	
38	Magnetic Relay	9900227012	9900227012	
39	Relay	9900287016	-----	
40	Outdoor Thermostat	9900275013	-----	
41	Thermostat Overheat	9354061002	-----	
42	Controller PCB Assy	-----	9705677036	
43	Thermistor Spring	-----	9372140017	
44	Outlet Pipe	9374266036	9974266029	
----	Accumulator Support-B Assy	9355350006	-----	
----	Accumulator Holder Rubber	9354022010	-----	
----	Belt Heater	9361140257	9361140257	
----	Shield Tube-S	9352307041	-----	
----	Thermistor Assy	-----	9900274016	
----	Varistor	-----	0000515610	
----	Fuse 6.3A-250V	-----	0600222574	
----	Fuse Holder	-----	0500158072	
----	Protective Net-L	9374255023	9374255023	
----	Drain Pipe (I-Yipe)	-----	9301102000	
----	Drain Packing	-----	9301143003	
----	Drain Cap	-----	313166024302	
----	Emblem Rear	9361328006	9361328006	

STANDARD ACCESSORIES

INDOOR UNIT ACCESSORIES

Name and Shape	Q'ty	Application	Part No.	
			RY-36FA	RY-36UA
Remote control unit 	1	Use for air conditioner operation	9371190020 (AR-JW2)	9371190013 (AR-JW1)
Battery (pen light) 	2	For remote control unit	0600185534	0600185534
Remote control unit holder 	1	For mounting the remote control unit	9305642014	9305642014
Tapping screw (φ 3 x 12) 	2	For remote control unit holder installation	301980000201	301980000201
Drain hose insulation 	1	Adhesive type 70 x 230	9360464002	9360464002
VT wire 	1	For fixing the drain hose L 280 mm	313806350303	313806350303
Coupler heat insulator (large) 	2	For indoor side pipe joint (large pipe)	9350716029	9350716029
Coupler heat insulator (small) 	1	For indoor side pipe joint (small pipe)	9352766015	9352766015
Nylon fastener 	Large 4	For fixing the coupler heat insulator	9301501001	9301501001
	Small 4		312300787605	312300787605
Special nut A (large flange) 	4	For installing indoor unit	313005446653	313005446653
Special nut B (small flange) 	4	For installing indoor unit	313005446759	313005446759
Installation template 	1	For positioning the indoor unit	9360022004	9360022004
Auxiliary pipe assembly 	1	For connecting the piping	9374714025	9374714025

OUTDOOR UNIT ACCESSORIES

Name and Shape	Q'ty	Application	Part No.	
			RO-36FA	RO-36UA
Drain pipe 	1	For outdoor unit drain piping work (May not be supplied, depending on the model)	----	9303029015
Drain cap 	2		----	313166024302
Installation (seal) 	1	For filling in a gap at the entrance of connection cords	9374756018	9374756018

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